



1/23

SEQUENCE LISTING

<110> Bogan, Jonathan S.
Lodish, Harvey F.

<120> Expression Cloning Method

<130> 0399.2025-002

<140> US 10/058,820

<141> 2002-01-28

<150> US 60/325,651

<151> 2001-09-28

<150> US 60/298,963

<151> 2001-06-18

<150> US 60/264,816

<151> 2001-01-26

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<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 550

<212> PRT

<213> Mus musculus

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Leu	Gln	Val	Leu	Glu	Asp	Thr	Cys	Arg	Arg	Gln	Asp	Phe	Asn	Pro	Ser
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Glu	Tyr	Asp	Leu	Lys	Phe	Gln	Arg	Thr	Val	Leu	Asp	Leu	Ser	Leu	Gln
	50					55					60				
Trp	Arg	Phe	Ala	Asn	Leu	Pro	Asn	Asn	Ala	Lys	Leu	Glu	Met	Val	Pro
65				70						75				80	
Val	Ser	Arg	Ser	Arg	Glu	Gly	Pro	Glu	Asn	Ile	Val	Arg	Ile	Ala	Phe
			85						90					95	
Gln	Leu	Asp	Asp	Gly	Ser	Arg	Leu	Gln	Asp	Ala	Phe	Cys	Ser	Arg	Gln
		100						105					110		
Thr	Leu	Trp	Glu	Leu	Leu	Ser	His	Phe	Ala	Gln	Thr	Arg	Glu	Arg	Leu
	115						120					125			
Gln	Gln	Leu	Gly	Glu	Lys	Thr	Pro	Val	Cys	Val	Tyr	Met	Arg	Asn	Glu
	130					135					140				
Val	Thr	Gly	Arg	Ala	Ala	Leu	Gln	Asn	Thr	Thr	Leu	Gln	Ser	Leu	Gly
145				150						155				160	
Leu	Thr	Gly	Gly	Ser	Ala	Thr	Ile	Arg	Phe	Val	Ile	Lys	Gln	Cys	Asp
			165						170					175	
Thr	Ala	Gly	Lys	Gln	Glu	Ser	Ile	Ala	Val	Arg	Ser	Lys	Ala	Pro	Gly
	180						185						190		
Ser	Pro	Val	Ser	Ser	Leu	Ser	Ala	Asp	Gln	Ala	Ser	Ser	Ser	Thr	Leu
	195						200						205		

Leu Pro Leu Asn Ser Gly Glu Phe Ser Arg Gly Asp Leu Asn His Glu
 210 215 220
 Gly Asp Ala Asn Thr Ser Gly Thr Gly Leu Glu Gly Gly Pro Lys Pro
 225 230 235 240
 Thr Asp Ala Gln Thr Lys Gln Ser Thr Ser Glu Pro Ala Ser Ala Pro
 245 250 255
 Phe Val Pro Phe Ser Gly Gly Gly Gln Arg Leu Gly Gly Pro Ser Ala
 260 265 270
 Ser Leu Arg Pro Leu Thr Ser Pro Ser Ala Asn Ser Ser Lys Ser Phe
 275 280 285
 Ser Gly Pro Gly Gly Pro Ser Lys Pro Lys Lys Pro Lys Pro Gly Glu
 290 295 300
 Glu Pro Gln Gln Glu Pro Glu Pro Pro Val Asp Arg Asp Pro Val Val
 305 310 315 320
 Tyr His Pro Asp Leu Glu Asp Leu Leu Gln Pro Trp Pro Ala Glu Val
 325 330 335
 Pro Asp Glu Phe Phe Glu Val Thr Val Asp Asp Val Arg Arg Arg Leu
 340 345 350
 Ala Gln Leu Lys Ser Glu Arg Lys Arg Leu Glu Glu Ala Pro Leu Val
 355 360 365
 Thr Lys Ala Phe Arg Glu Ala Gln Met Lys Glu Lys Leu Glu Arg Tyr
 370 375 380
 Pro Lys Val Ala Leu Arg Val Leu Phe Pro Asp Arg Tyr Ile Leu Gln
 385 390 395 400
 Gly Phe Phe Arg Pro Ser Glu Thr Val Gly Asp Leu Arg Asp Phe Val
 405 410 415
 Arg Ser His Leu Gly Asn Pro Glu Leu Ser Phe Tyr Leu Phe Ile Ala
 420 425 430
 Pro Pro Lys Met Val Leu Asp Asp His Thr Leu Thr Leu Phe Gln Ala
 435 440 445
 Asn Leu Phe Pro Ala Ala Leu Val His Phe Gly Ala Glu Glu Pro Thr
 450 455 460
 Gly Leu Tyr Leu Glu Pro Gly Leu Leu Glu His Thr Val Ser Pro Ser
 465 470 475 480
 Thr Ala Asp Val Leu Val Ala Arg Cys Met Ser Arg Ala Ser Gly Ser
 485 490 495
 Pro Pro Leu Leu Pro Ala Pro Asp Pro Val Ser Leu Glu Ser Glu Pro
 500 505 510
 Ile Ala Glu Asp Gly Ala Leu Gly Pro Pro Glu Pro Ile Gln Gly Thr
 515 520 525
 Ala Gln Pro Val Lys Arg Ser Leu Gly Lys Val Pro Lys Trp Leu Lys
 530 535 540
 Leu Pro Ala Ser Lys Arg
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<210> 2
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 <212> PRT
 <213> Mus musculus

<400> 2
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 20 25 30
 Ser Arg Gln Thr Leu Trp Glu Leu Leu Ser His Phe Ala Gln Thr Arg
 35 40 45
 Glu Arg Leu Gln Gln Leu Gly Glu Lys Thr Pro Val Cys Val Tyr Met

50	55	60
Arg Asn Glu Val Thr	Gly Arg Ala Ala Leu Gln Asn Thr Thr Leu Gln	
65	70	75
Ser Leu Gly Leu Thr	Gly Gly Ser Ala Thr Ile Arg Phe Val Ile Lys	80
	85	90
Gln Cys Asp Thr Ala Gly Lys Gln Glu Ser Ile Ala Val Arg Ser Lys		95
	100	105
Ala Pro Gly Ser Pro Val Ser Ser Leu Ser Ala Asp Gln Ala Ser Ser		110
	115	120
Ser Thr Leu Leu Pro Leu Asn Ser Gly Glu Phe Ser Arg Gly Asp Leu		125
	130	135
Asn His Glu Gly Asp Ala Asn Thr Ser Gly Thr Gly Leu Glu Gly Gly		140
145	150	155
Pro Lys Pro Thr Asp Ala Gln Thr Lys Gln Ser Thr Ser Glu Pro Ala		160
	165	170
Ser Ala Pro Phe Val Pro Phe Ser Gly Gly Gly Gln Arg Leu Gly Gly		175
	180	185
Pro Ser Ala Ser Leu Arg Pro Leu Thr Ser Pro Ser Ala Asn Ser Ser		190
	195	200
Lys Ser Phe Ser Gly Pro Gly Gly Pro Ser Lys Pro Lys Lys Pro Lys		205
	210	215
Pro Gly Glu Glu Pro Gln Gln Glu Pro Glu Pro Pro Val Asp Arg Asp		220
225	230	235
Pro Val Val Tyr His Pro Asp Leu Glu Asp Leu Leu Gln Pro Trp Pro		240
	245	250
Ala Glu Val Pro Asp Glu Phe Phe Glu Val Thr Val Asp Asp Val Arg		255
	260	265
Arg Arg Leu Ala Gln Leu Lys Ser Glu Arg Lys Arg Leu Glu Glu Ala		270
	275	280
Pro Leu Val Thr Lys Ala Phe Arg Glu Ala Gln Met Lys Glu Lys Leu		285
	290	295
Glu Arg Tyr Pro Lys Val Ala Leu Arg Val Leu Phe Pro Asp Arg Tyr		300
305	310	315
Ile Leu Gln Gly Phe Phe Arg Pro Ser Glu Thr Val Gly Asp Leu Arg		320
	325	330
Asp Phe Val Arg Ser His Leu Gly Asn Pro Glu Leu Ser Phe Tyr Leu		335
	340	345
Phe Ile Ala Pro Pro Lys Met Val Leu Asp Asp His Thr Leu Thr Leu		350
	355	360
Phe Gln Ala Asn Leu Phe Pro Ala Ala Leu Val His Phe Gly Ala Glu		365
	370	375
Glu Pro Thr Gly Leu Tyr Leu Glu Pro Gly Leu Leu Glu His Thr Val		380
385	390	395
Ser Pro Ser Thr Ala Asp Val Leu Val Ala Arg Cys Met Ser Arg Ala		400
	405	410
Ser Gly Ser Pro Pro Leu Leu Pro Ala Pro Asp Pro Val Ser Leu Glu		415
	420	425
Ser Glu Pro Ile Ala Glu Asp Gly Ala Leu Gly Pro Pro Glu Pro Ile		430
	435	440
Gln Gly Thr Ala Gln Pro Val Lys Arg Ser Leu Gly Lys Val Pro Lys		445
	450	455
Trp Leu Lys Leu Pro Ala Ser Lys Arg		460
465	470	

<210> 3
 <211> 553
 <212> PRT
 <213> Homo sapiens

<400> 3

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			20					25					30		
Leu	Gln	Val	Leu	Glu	Asp	Thr	Cys	Arg	Arg	Gln	Asp	Phe	Asn	Pro	Cys
	35						40					45			
Glu	Tyr	Asp	Leu	Lys	Phe	Gln	Arg	Ser	Val	Leu	Asp	Leu	Ser	Leu	Gln
	50					55					60				
Trp	Arg	Phe	Ala	Asn	Leu	Pro	Asn	Asn	Ala	Lys	Leu	Glu	Met	Val	Pro
65					70					75					80
Ala	Ser	Arg	Ser	Arg	Glu	Gly	Pro	Glu	Asn	Met	Val	Arg	Ile	Ala	Leu
				85					90					95	
Gln	Leu	Asp	Asp	Gly	Ser	Arg	Leu	Gln	Asp	Ser	Phe	Cys	Ser	Gly	Gln
			100					105					110		
Thr	Leu	Trp	Glu	Leu	Leu	Ser	His	Phe	Pro	Gln	Ile	Arg	Glu	Cys	Leu
	115						120						125		
Gln	His	Pro	Gly	Gly	Ala	Thr	Pro	Val	Cys	Val	Tyr	Thr	Arg	Asp	Glu
	130					135					140				
Val	Thr	Gly	Glu	Ala	Ala	Leu	Arg	Gly	Thr	Thr	Leu	Gln	Ser	Leu	Gly
145					150					155					160
Leu	Thr	Gly	Gly	Ser	Ala	Thr	Ile	Arg	Phe	Val	Met	Lys	Cys	Tyr	Asp
				165					170					175	
Pro	Val	Gly	Lys	Thr	Pro	Gly	Ser	Leu	Gly	Ser	Ser	Ala	Ser	Ala	Gly
			180					185					190		
Gln	Ala	Ala	Ala	Ser	Ala	Pro	Leu	Pro	Leu	Glu	Ser	Gly	Glu	Leu	Ser
	195						200					205			
Arg	Gly	Asp	Leu	Ser	Arg	Pro	Glu	Asp	Ala	Asp	Thr	Ser	Gly	Pro	Cys
	210					215					220				
Cys	Glu	His	Thr	Gln	Glu	Lys	Gln	Ser	Thr	Arg	Ala	Pro	Ala	Ala	Ala
225					230					235					240
Pro	Phe	Val	Pro	Phe	Ser	Gly	Gly	Gly	Gln	Arg	Leu	Gly	Gly	Pro	Pro
				245					250					255	
Gly	Pro	Thr	Arg	Pro	Leu	Thr	Ser	Ser	Ser	Ala	Lys	Leu	Pro	Lys	Ser
			260					265					270		
Leu	Ser	Ser	Pro	Gly	Gly	Pro	Ser	Lys	Pro	Lys	Lys	Ser	Lys	Ser	Gly
	275						280					285			
Gln	Asp	Pro	Gln	Gln	Glu	Gln	Glu	Gln	Glu	Arg	Glu	Arg	Asp	Pro	Gln
	290					295					300				
Gln	Glu	Gln	Glu	Arg	Glu	Arg	Pro	Val	Asp	Arg	Glu	Pro	Val	Asp	Arg
305					310					315					320
Glu	Pro	Val	Val	Cys	His	Pro	Asp	Leu	Glu	Glu	Arg	Leu	Gln	Ala	Trp
				325					330					335	
Pro	Ala	Glu	Leu	Pro	Asp	Glu	Phe	Phe	Glu	Leu	Thr	Val	Asp	Asp	Val
			340					345					350		
Arg	Arg	Arg	Leu	Ala	Gln	Leu	Lys	Ser	Glu	Arg	Lys	Arg	Leu	Glu	Glu
		355					360					365			
Ala	Pro	Leu	Val	Thr	Lys	Ala	Phe	Arg	Glu	Ala	Gln	Ile	Lys	Glu	Lys
	370					375					380				
Leu	Glu	Arg	Tyr	Pro	Lys	Val	Ala	Leu	Arg	Val	Leu	Phe	Pro	Asp	Arg
385					390					395					400
Tyr	Val	Leu	Gln	Gly	Phe	Phe	Arg	Pro	Ser	Glu	Thr	Val	Gly	Asp	Leu
				405					410					415	
Arg	Asp	Phe	Val	Arg	Ser	His	Leu	Gly	Asn	Pro	Glu	Leu	Ser	Phe	Tyr
			420					425					430		
Leu	Phe	Ile	Thr	Pro	Pro	Lys	Thr	Val	Leu	Asp	Asp	His	Thr	Gln	Thr
	435						440					445			
Leu	Phe	Gln	Ala	Asn	Leu	Phe	Pro	Ala	Ala	Leu	Val	His	Leu	Gly	Ala
	450					455					460				

Glu Glu Pro Ala Gly Val Tyr Leu Glu Pro Gly Leu Leu Glu His Ala
 465 470 475 480
 Ile Ser Pro Ser Ala Ala Asp Val Leu Val Ala Arg Tyr Met Ser Arg
 485 490 495
 Ala Ala Gly Ser Pro Ser Pro Leu Pro Ala Pro Asp Pro Ala Pro Lys
 500 505 510
 Ser Glu Pro Ala Ala Glu Glu Gly Ala Leu Val Pro Pro Glu Pro Ile
 515 520 525
 Pro Gly Thr Ala Gln Pro Val Lys Arg Ser Leu Gly Lys Val Pro Lys
 530 535 540
 Trp Leu Lys Leu Pro Ala Ser Lys Arg
 545 550

<210> 4

<211> 476

<212> PRT

<213> Homo sapiens

<400> 4

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 Ser Gly Gln Thr Leu Trp Glu Leu Leu Ser His Phe Pro Gln Ile Arg
 35 40 45
 Glu Cys Leu Gln His Pro Gly Gly Ala Thr Pro Val Cys Val Tyr Thr
 50 55 60
 Arg Asp Glu Val Thr Gly Glu Ala Ala Leu Arg Gly Thr Thr Leu Gln
 65 70 75 80
 Ser Leu Gly Leu Thr Gly Gly Ser Ala Thr Ile Arg Phe Val Met Lys
 85 90 95
 Cys Tyr Asp Pro Val Gly Lys Thr Pro Gly Ser Leu Gly Ser Ser Ala
 100 105 110
 Ser Ala Gly Gln Ala Ala Ala Ser Ala Pro Leu Pro Leu Glu Ser Gly
 115 120 125
 Glu Leu Ser Arg Gly Asp Leu Ser Arg Pro Glu Asp Ala Asp Thr Ser
 130 135 140
 Gly Pro Cys Cys Glu His Thr Gln Glu Lys Gln Ser Thr Arg Ala Pro
 145 150 155 160
 Ala Ala Ala Pro Phe Val Pro Phe Ser Gly Gly Gly Gln Arg Leu Gly
 165 170 175
 Gly Pro Pro Gly Pro Thr Arg Pro Leu Thr Ser Ser Ser Ala Lys Leu
 180 185 190
 Pro Lys Ser Leu Ser Ser Pro Gly Gly Pro Ser Lys Pro Lys Lys Ser
 195 200 205
 Lys Ser Gly Gln Asp Pro Gln Gln Glu Gln Glu Gln Arg Glu Arg
 210 215 220
 Asp Pro Gln Gln Glu Gln Glu Arg Glu Arg Pro Val Asp Arg Glu Pro
 225 230 235 240
 Val Asp Arg Glu Pro Val Val Cys His Pro Asp Leu Glu Glu Arg Leu
 245 250 255
 Gln Ala Trp Pro Ala Glu Leu Pro Asp Glu Phe Phe Glu Leu Thr Val
 260 265 270
 Asp Asp Val Arg Arg Arg Leu Ala Gln Leu Lys Ser Glu Arg Lys Arg
 275 280 285
 Leu Glu Glu Ala Pro Leu Val Thr Lys Ala Phe Arg Glu Ala Gln Ile
 290 295 300
 Lys Glu Lys Leu Glu Arg Tyr Pro Lys Val Ala Leu Arg Val Leu Phe

305					310					315				320
Pro	Asp	Arg	Tyr	Val	Leu	Gln	Gly	Phe	Phe	Arg	Pro	Ser	Glu	Thr
				325					330					335
Gly	Asp	Leu	Arg	Asp	Phe	Val	Arg	Ser	His	Leu	Gly	Asn	Pro	Glu
			340					345				350		Leu
Ser	Phe	Tyr	Leu	Phe	Ile	Thr	Pro	Pro	Lys	Thr	Val	Leu	Asp	Asp
	355						360					365		His
Thr	Gln	Thr	Leu	Phe	Gln	Ala	Asn	Leu	Phe	Pro	Ala	Ala	Leu	Val
	370					375				380				His
Leu	Gly	Ala	Glu	Glu	Pro	Ala	Gly	Val	Tyr	Leu	Glu	Pro	Gly	Leu
385					390					395				400
Glu	His	Ala	Ile	Ser	Pro	Ser	Ala	Ala	Asp	Val	Leu	Val	Ala	Arg
			405						410					415
Met	Ser	Arg	Ala	Ala	Gly	Ser	Pro	Ser	Pro	Leu	Pro	Ala	Pro	Asp
			420					425					430	Pro
Ala	Pro	Lys	Ser	Glu	Pro	Ala	Ala	Glu	Glu	Gly	Ala	Leu	Val	Pro
		435					440					445		Pro
Glu	Pro	Ile	Pro	Gly	Thr	Ala	Gln	Pro	Val	Lys	Arg	Ser	Leu	Gly
	450					455					460			Lys
Val	Pro	Lys	Trp	Leu	Lys	Leu	Pro	Ala	Ser	Lys	Arg			
465					470					475				

<210> 5

<211> 441

<212> PRT

<213> Mus musculus

<400> 5

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			20					25					30		
Lys	Gly	Lys	Ser	Pro	Gln	Leu	Ala	Leu	Arg	Gln	Pro	Arg	Gln	Gly	Pro
	35					40						45			
Thr	Asp	Glu	Ala	Gln	Met	Ala	Ala	Ala	Ala	Ala	Leu	Ala	Arg	Leu	Glu
	50				55						60				
Gln	Lys	Gln	Pro	Arg	Ala	Arg	Gly	Pro	Thr	Ser	Gln	Asp	Ser	Ile	Arg
65				70					75					80	
Asn	Gln	Val	Arg	Lys	Glu	Leu	Gln	Ala	Glu	Ala	Thr	Ser	Ser	Asn	Asn
			85					90						95	
Pro	Gly	Ala	Pro	Gly	Thr	Asn	Ser	Val	Pro	Glu	Pro	Lys	Glu	Glu	Ile
		100						105					110		
Ser	Pro	His	Leu	Ala	Val	Pro	Gly	Val	Phe	Phe	Ile	Cys	Pro	Leu	Thr
		115					120					125			
Gly	Val	Thr	Leu	Arg	Arg	Asp	Gln	Arg	Asp	Ala	His	Ile	Lys	Gln	Ala
	130					135				140					
Ile	Leu	Ser	His	Phe	Ser	Thr	Asp	Pro	Val	Ala	Ala	Ser	Ile	Met	Lys
145					150					155				160	
Ile	His	Thr	Phe	Asn	Arg	Asp	Arg	Asp	Arg	Val	Lys	Leu	Gly	Val	Asp
			165						170					175	
Thr	Ile	Ala	Lys	Tyr	Leu	Asp	Asn	Ile	His	Leu	His	Pro	Glu	Glu	Glu
		180					185						190		
Lys	Tyr	Gln	Lys	Ile	Lys	Leu	Gln	Asn	Lys	Val	Phe	Gln	Glu	Arg	Ile
	195						200					205			
Asn	Cys	Leu	Glu	Gly	Ser	His	Glu	Phe	Phe	Glu	Ala	Ile	Gly	Phe	Lys
	210					215					220				
Lys	Val	Thr	Leu	Pro	Val	Pro	Asp	Gln	Glu	Gly	Gln	Glu	Glu	Phe	Tyr
225					230					235				240	

Val	Leu	Gly	Glu	Asp	Ala	Arg	Ala	Pro	Gln	Asn	Leu	Ala	Arg	His	Lys
				245					250					255	
Gln	Gln	Leu	Leu	Asp	Ala	Glu	Pro	Val	Arg	Ala	Thr	Leu	Asp	Arg	Gln
			260					265					270		
Leu	Arg	Val	Phe	Arg	Pro	Ser	Ala	Leu	Ala	Ser	His	Phe	Glu	Leu	Pro
		275					280					285			
Ser	Asp	Phe	Phe	Ser	Leu	Thr	Ala	Glu	Glu	Val	Lys	Arg	Asp	Glu	Arg
	290					295					300				
Leu	Arg	Thr	Glu	Ala	Val	Glu	Arg	Leu	Ser	Ser	Leu	Arg	Thr	Lys	Ala
305					310					315					320
Met	Arg	Glu	Lys	Glu	Glu	Gln	Arg	Asp	Val	Arg	Lys	Tyr	Thr	Tyr	Ala
				325					330					335	
Leu	Val	Arg	Val	Arg	Leu	Pro	Asp	Gly	Cys	Leu	Leu	Gln	Gly	Thr	Phe
			340					345					350		
Tyr	Ala	Arg	Glu	Lys	Leu	Ser	Ala	Leu	Phe	Arg	Phe	Val	Arg	Glu	Ala
		355					360					365			
Leu	Gln	Asn	Asp	Trp	Leu	Pro	Phe	Glu	Leu	Arg	Ala	Ser	Gly	Gly	Gln
	370					375					380				
Lys	Leu	Glu	Glu	Asn	Glu	Ala	Leu	Ala	Leu	Asn	Glu	Cys	Gly	Leu	Val
385					390					395					400
Pro	Ser	Ala	Leu	Leu	Thr	Phe	Ser	Trp	Asp	Ala	Ser	Val	Leu	Glu	Asp
				405					410					415	
Ile	Arg	Ala	Ala	Gly	Ala	Glu	Pro	Ala	Lys	Ser	Val	Leu	Arg	Pro	Glu
			420					425					430		
Leu	Leu	Ala	Ala	Ile	Glu	Gln	Leu	Ser							
		435					440								

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<210> 6
<211> 441
<212> PRT
<213> Homo sapiens
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<400>	6														
Met	Lys	Lys	Phe	Phe	Gln	Glu	Phe	Lys	Ala	Asp	Ile	Lys	Phe	Lys	Ser
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Ala	Gly	Pro	Gly	Gln	Lys	Leu	Lys	Glu	Ser	Val	Gly	Glu	Lys	Ala	His
			20					25					30		
Lys	Glu	Lys	Pro	Asn	Gln	Pro	Ala	Pro	Arg	Pro	Pro	Arg	Gln	Gly	Pro
		35					40					45			
Thr	Asn	Glu	Ala	Gln	Met	Ala	Ala	Ala	Ala	Ala	Leu	Ala	Arg	Leu	Glu
	50					55					60				
Gln	Lys	Gln	Ser	Arg	Ala	Trp	Gly	Pro	Thr	Ser	Gln	Asp	Thr	Ile	Arg
65				70					75					80	
Asn	Gln	Val	Arg	Lys	Glu	Leu	Gln	Ala	Glu	Ala	Thr	Val	Ser	Gly	Ser
				85				90					95		
Pro	Glu	Ala	Pro	Gly	Thr	Asn	Val	Val	Ser	Glu	Pro	Arg	Glu	Glu	Gly
			100					105					110		
Ser	Ala	His	Leu	Ala	Val	Pro	Gly	Val	Tyr	Phe	Thr	Cys	Pro	Leu	Thr
		115					120				125				
Gly	Ala	Thr	Leu	Arg	Lys	Asp	Gln	Arg	Asp	Ala	Cys	Ile	Lys	Glu	Ala
	130					135					140				
Ile	Leu	Leu	His	Phe	Ser	Thr	Asp	Pro	Val	Ala	Ala	Ser	Ile	Met	Lys
145				150					155					160	
Ile	Tyr	Thr	Phe	Asn	Lys	Asp	Gln	Asp	Arg	Val	Lys	Leu	Gly	Val	Asp
				165				170					175		
Thr	Ile	Ala	Lys	Tyr	Leu	Asp	Asn	Ile	His	Leu	His	Pro	Glu	Glu	Glu
			180					185				190			
Lys	Tyr	Arg	Lys	Ile	Lys	Leu	Gln	Asn	Lys	Val	Phe	Gln	Glu	Arg	Ile

		195					200					205						
Asn	Cys	Leu	Glu	Gly	Thr	His	Glu	Phe	Phe	Glu	Ala	Ile	Gly	Phe	Gln			
	210					215					220							
Lys	Val	Leu	Leu	Pro	Ala	Gln	Asp	Gln	Glu	Asp	Pro	Glu	Glu	Phe	Tyr			
225					230					235					240			
Val	Leu	Ser	Glu	Thr	Thr	Leu	Ala	Gln	Pro	Gln	Ser	Leu	Glu	Arg	His			
				245					250					255				
Lys	Glu	Gln	Leu	Leu	Ala	Ala	Glu	Pro	Val	Arg	Ala	Lys	Leu	Asp	Arg			
			260					265					270					
Gln	Arg	Arg	Val	Phe	Gln	Pro	Ser	Pro	Leu	Ala	Ser	Gln	Phe	Glu	Leu			
		275					280					285						
Pro	Gly	Asp	Phe	Phe	Asn	Leu	Thr	Ala	Glu	Glu	Ile	Lys	Arg	Glu	Gln			
	290				295						300							
Arg	Leu	Arg	Ser	Glu	Ala	Val	Glu	Arg	Leu	Ser	Val	Leu	Arg	Thr	Lys			
305					310					315					320			
Ala	Met	Arg	Glu	Lys	Glu	Glu	Gln	Arg	Gly	Leu	Arg	Lys	Tyr	Asn	Tyr			
				325					330					335				
Thr	Leu	Leu	Arg	Val	Arg	Leu	Pro	Asp	Gly	Cys	Leu	Leu	Gln	Gly	Thr			
			340					345					350					
Phe	Tyr	Ala	Arg	Glu	Arg	Leu	Gly	Ala	Val	Tyr	Gly	Phe	Val	Arg	Glu			
		355					360					365						
Ala	Leu	Gln	Ser	Asp	Trp	Leu	Pro	Phe	Glu	Leu	Leu	Ala	Ser	Gly	Gly			
	370					375					380							
Gln	Lys	Leu	Ser	Glu	Asp	Glu	Asn	Leu	Ala	Leu	Asn	Glu	Cys	Gly	Leu			
385					390					395					400			
Val	Pro	Ser	Ala	Leu	Leu	Thr	Phe	Ser	Trp	Asp	Met	Ala	Val	Leu	Glu			
			405						410					415				
Asp	Ile	Lys	Ala	Ala	Gly	Ala	Glu	Pro	Asp	Ser	Ile	Leu	Lys	Pro	Glu			
			420					425				430						
Leu	Leu	Ser	Ala	Ile	Glu	Lys	Leu	Leu										
		435					440											

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<210> 7
<211> 100
<212> PRT
<213> Homo sapiens
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[illegible]

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<211> 1788
<212> DNA
<213> Mus musculus
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Asp	Lys	Lys	Glu	Gly	Glu	Tyr	Ile	Lys	Leu	Lys	Val	Ile	Gly	Gln	Asp				
			20										25						
Ser	Ser	Glu	Ile	His	Phe	Lys	Val	Lys	Met	Thr	Thr	His	Leu	Lys	Lys				
		35																	
Leu	Lys	Glu	Ser	Tyr	Cys	Gln	Arg	Gln	Gly	Val	Pro	Met	Asn	Ser	Leu				
		50																	
Arg	Phe	Leu	Phe	Glu	Gly	Gln	Arg	Ile	Ala	Asp	Asn	His	Thr	Pro	Lys				
65				70															
Glu	Leu	Gly	Met	Glu	Glu	Glu	Asp	Val	Ile	Glu	Val	Tyr	Gln	Glu	Gln				
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Thr	Gly	Gly	His	Ser	Thr	Val													
			100																

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 <212> PRT
 <213> Unknown

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 20 25 30
 Lys Glu Gly Ile Pro Pro Asp Gln Gln Arg Leu Ile Phe Ala Gly Lys
 35 40 45
 Gln Leu Glu Asp Gly Arg Thr Leu Ser Asp Tyr Asn Ile Gln Lys Glu
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<220>
 <223> UBX Domain of L1UB1

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 Lys Val Thr Pro Ser Thr Val Leu Leu Gln Val Leu Glu Asp Thr Cys
 20 25 30
 Arg Arg Gln Asp Phe Asn Pro Ser Glu Tyr Asp Leu Lys Phe Gln Arg
 35 40 45
 Thr Val Leu Asp Leu Ser Leu Gln Trp Arg Phe Ala Asn Leu Pro Asn
 50 55 60
 Asn Ala Lys Leu Glu Met Val Pro Val Ser Arg Ser Arg
 65 70 75

Q2
 conc